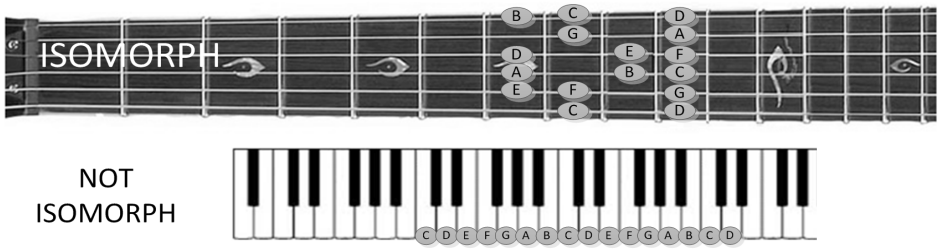
Version 2.0

Introduction

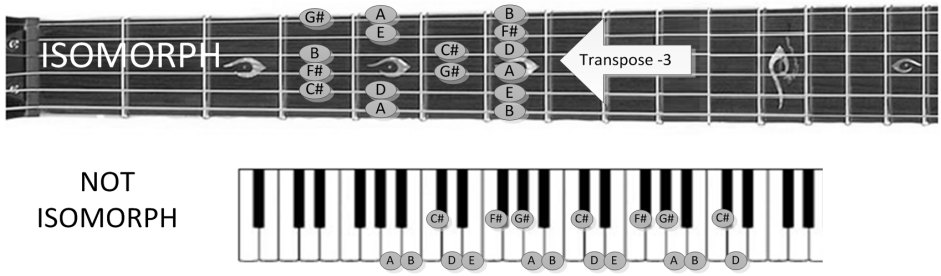
The word 'isomorphic' (from ancient Greek: *iso* = same, *morph* = shape) means something quite practical and useful when applied to musical instruments. In fact an instrument with an isomorphic layout is generally simple to play as it reduces to a bare minimum the need of memorizing positions associated to scales and to chords.

To get an idea, take the example of the *guitar*: if you are familiar with the instrument you should know that once you learned a given scale on a given position, you automatically know this type of scale for *any* other position: you just need to *shift* the starting position and perform exactly the same movements.

Here as an example the C Major scale, shown on both the guitar (isomorphic) and the piano keyboard (not isomorphic):



If the same scale is shifted three semitones down to A Major, this is what we get:



As you can see, on the guitar, exactly the "*same shape*" (indeed *iso* - *morph*) applies to both the C and A Major scales, just the location on the neck shifts. This is not case for the piano, as you are required to apply the necessary "fingering" (a mnemonic and articulation complex effort) to achieve the same result.

The J74 ISO Controllers package explores this concept on the Novation Launchpad family of programmable MIDI controllers, turning them into (multi-template) isomorphic instruments.

Let's see in this manual how exactly this happens.

Installation

ISO Controllers is a *standalone desktop application* for both MAC and Windows. It works by interacting with a Launchpad controller, receiving information from the physical device (e.g. when you press a pad) and sending feedback for pads and buttons colors. In output ISO Controllers generates *standard MIDI*.

As just standard MIDI is generated, ISO Controllers can be used in combination with any other software or hardware *which accepts MIDI as input*. This also applies to Digital Audio Workstations (like Cubase, Sonar, Logic, Ableton Live, FL Studio and so on).

Note: In the case of use with a Digital Audio Workstation (DAW) an *internal MIDI bus or virtual MIDI port* is required. On a Mac the standard IAC driver bus can be used. On Windows several freeware virtual MIDI ports are supported, such as LoopBE1, MIDI Yoke or MIDI OX.

To install the software, after you completed the download, unzip the ZIP package and look for the folder dedicated to your system OS (Mac or Windows). Copy this folder to any location you like to use on your computer. In this folder you will find the "J74-ISO-Launchpad" executable.

Important note for Windows users: Windows users are required to have the Novation driver for Launchpad installed on their system. This is necessary, as the default Windows OS USB driver for generic USB compliant devices will not be capable to support multiple applications at the same time and therefore prevent the use of ISO Controllers together with other software, such as a DAW. The Novation driver, instead, is capable of multi-client access and will allow the full functionality of the software.

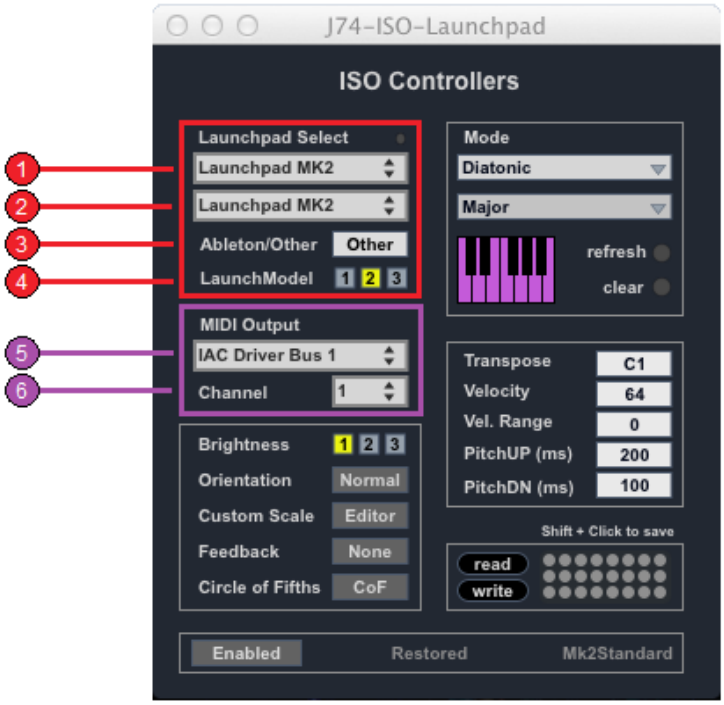
You can visit the Novation Support download page from here: http://us.novationmusic.com/support/downloads
From the Support/Download select your device, download the driver and install it.

Next, we will have a look now on how to the setup your environment.

Configuration: Launchpad and MIDI Output setup

Before starting up the ISO Controllers application, be sure the Launchpad is properly connected. The first time you run ISO Controllers the software will try to *auto-configure* the Launchpad settings. In most cases *auto-configure* should identify and auto configure the Launchpad properly (if connected), so all you would need to do is to select a MIDI output (virtual) port.

Note: You need to modify the setting for the Launchpad (red box in the picture below) ONLY if auto-configure failed to match your environment, for instance if you have *multiple* Launchpads (and wish to change the model ISO Controllers needs to use) or if you *replace* the Launchpad type with another model later on.



Launchpad Configuration settings:

1. The [**Launchpad Select – Input**] defines FROM which Launchpad ISO Controllers receives MIDI (e.g. pads)
2. The [**Launchpad Select – Output**] defines TO which Launchpad ISO Controllers sends MIDI (for colors)
3. The [**Ableton/Other**] selector only applies to the Launchpad MK2 (due to its Ableton Live behavior).
    - IF the Launchpad in use is NOT a MK2 model, you can *ignore this parameter*.
    - IF the model in use is a MK2 AND you work with Ableton Live as DAW, set [Ableton/Other] = *Live* (which is actually the default).
    - IF the model in use is a MK2 AND you work with another DAW (or any other software/hardware), set [Ableton/Other] = *Other*.
4. The [**Launchpad Model**] selector defines the *type* of Launchpad. The following are the correct settings:
    - Launchpad Classic (the older, original model): [Launchpad Model] = **1**
    - Launchpad S: [Launchpad Model] = **1**
    - Launchpad MK2: [Launchpad Model] = **2**
    - Launchpad Mini: [Launchpad Model] = **1**
    - Launchpad Mini MK2: [Launchpad Model] = **1** (indeed the Mini MK2 behaves as an original Mini)
    - Launchpad Pro: [Launchpad Model] = **3**

MIDI Output Configuration:

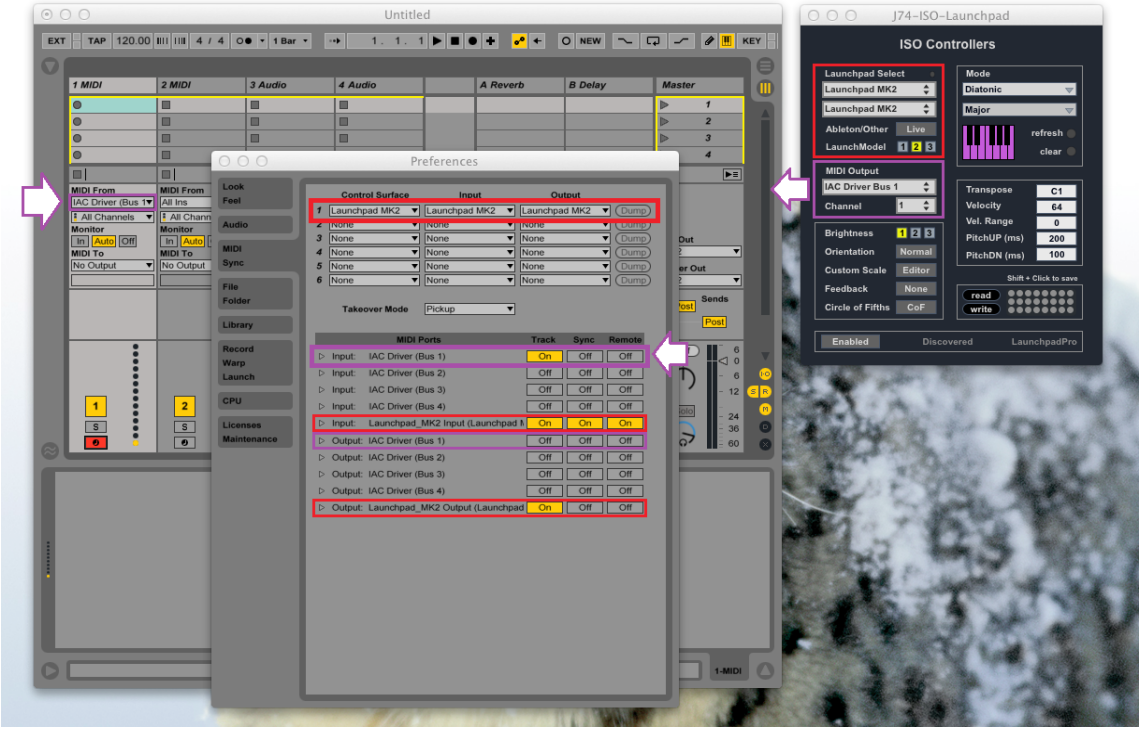
5. The [**MIDI Output**] menu selects the *output port on which ISO Controllers sends MIDI output*. This will be *the port leading to the instrument you wish to play*. It can be a physical MIDI port (e.g. to a synthesizer) or a virtual MIDI port (an internal computer bus, Like the IAC driver on a Mac or a LoopBE or similar on Windows), the latter applicable in particular to the case of using a DAW.
6. The [**Channel**] parameter defines to which MIDI channel of the [MIDI Output] port ISO controllers need to send MIDI to. In most cases this can be left to channel 1. An exception to this applies to Logic X. See the "Notes about working with Logic X" further in this manual on the topic.

Important: if you work with a DAW, remember to *enable the virtual MIDI port you wish to use as MIDI input port on the DAW preferences*. It is also recommendable to disable the same port as MIDI output port on the DAW, this in order to avoid accidental MIDI loops (some DAW's will indeed create MIDI loops in certain conditions).

Important: if on the DAW the same Launchpad is also enabled as input device, be sure to select for the MIDI track you wish to play ONLY the virtual MIDI port as MIDI input (the virtual MIDI port you selected as [MIDI Output] in ISO Controllers). Missing this step (leaving "All Input's" enabled on the track) could result is *both* ISO Controllers AND the raw Launchpad port sending MIDI to the same track, and therefore causing improper behavior. Remember: it is only from ISO Controllers that you wish to receive MIDI on this track (if you use ISO Controllers).

Note: In the case of Logic X refer to the "Notes about working with Logic X" provided further in this manual.

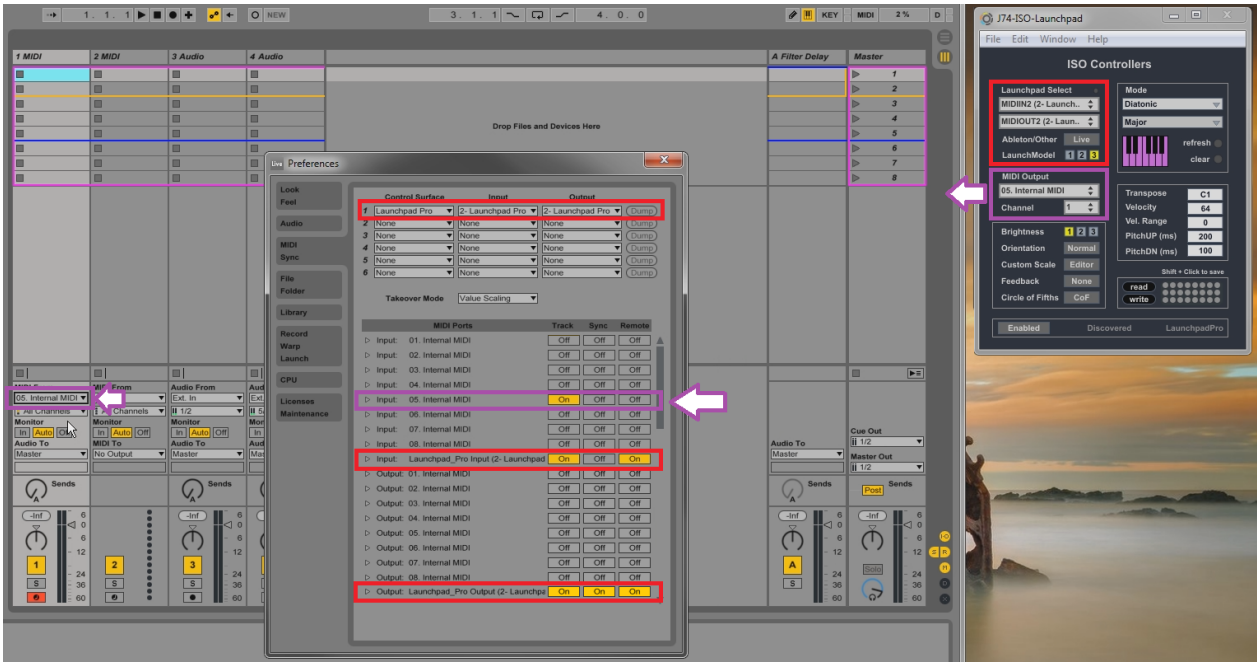
The picture below shows an example setup with Launchpad MK2 and for Ableton Live on a Mac:



The items highlighted in red are actually *default* settings in Live and *auto-configured* settings in ISO Controllers. The items in purple are the required *manual settings*. In the picture you can also notice that the virtual MIDI port (IAC Driver Bus 1) has *only been enabled as input port* in the DAW preferences and that, on the MIDI track armed for recording, the input MIDI From has been *set explicitly* to the virtual MIDI port (IAC Driver Bus 1) in question.

Next an example of Launchpad S, also with Ableton Live, again on a Mac. As you can see configuration is pretty similar to the previous case. Notice in this case the [**Launchpad Model**] (LaunchModel) in ISO Controllers set to *model 1* (it was model 2 in the MK2 case). The rest is conceptually identical to the previous case.

Now an example on Windows, this time with the Launchpad Pro (and again Ableton Live). Notice now that the [**Launchpad Model**] (LaunchModel) set to *model 3* in ISO Controllers. The rest is again pretty similar to the previous cases (Live defaults and ISO auto-configure in red, manual settings in purple).



Notes about working with Logic X

A DAW which requires a bit more attention in MIDI handling with ISO Controllers is Apple Logic X. Logic X happens to mix all input MIDI it can find and route it to any MIDI/Instrument track. By default, without any preference tweaking, you end up in getting both native Launchpad raw MIDI and the IAC bus MIDI (sent from the ISO Controllers software) mixed together in input to the instrument you are playing.

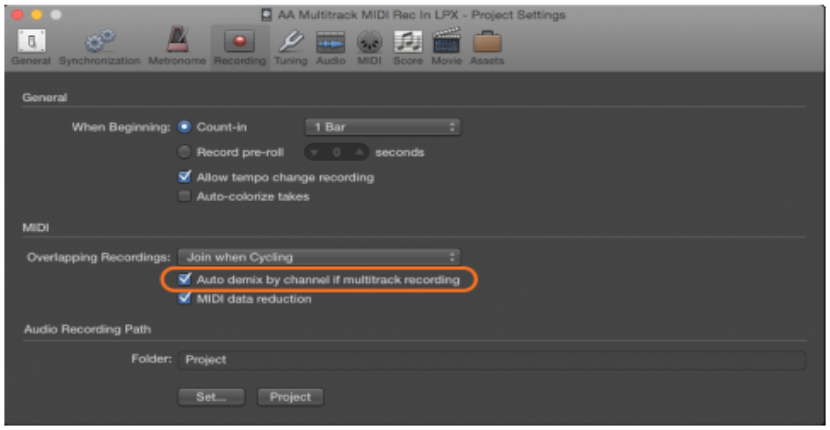
Fortunately there are a few ways to address this. Here a few suggestions:

1) Use per track MIDI channels with the "**Auto demix by channel if multitrack recording**" option in Logic X and a different MIDI channel. This way you can set ISO Controllers to send MIDI on a specific MIDI channel (different from any Launchpad's default used channels, such as 1) and select that specific channel in Logic X on the track to play. This way you will get *only that MIDI channel* as input.

A good description of this type of MIDI setup can be found in this article:
https://ask.audio/articles/logic-pro-x-a-guide-to-multitrack-midi-recording

The article describes, towards the end of the page, the use of this option. Essentially this is what you need to do:

- In ISO Controller select a channel different from 1 as output MIDI channel (example: channel 13)
- In Logic X go to: File > Project Settings > Recording
  - On the MIDI section there is a normally unselected box which says [Auto demix by channel if multitrack recording]. Check this box (enable it) and close the window.
  - Create now your instrument track as usual
  - Select on the inspector of the track the same MIDI channels you specified in ISO Controllers.



With this approach you can set up ISO Controller to use, let's say, channel 13 and set up Logic to pick that MIDI channel 13 up on the track you like to play.

2) Another maybe a bit more complicated (while more generic) option, is to remove the Launchpad raw MIDI input from the input to any track. This is possible by configuring "**Logic MIDI Environment**" accordingly. In Logic MIDI Environment identify the virtual MIDI cable of the native Launchpad. All you need to do is to delete it.

Here are Apple's specifications on Logic MIDI Environment: https://support.apple.com/kb/PH13245?locale=en_US

Summary of Launchpad settings depending on the model and OS type

The following gives a summary of the correct [Launchpad Select] settings as required by each model & OS case.

Launchpad Classic, S, Mini and Mini MK2 (*) on both Mac and Windows OS platforms (LaunchModel 1)

Launchpad MK2 with Ableton Live on both Mac and Windows OS Platforms (LaunchModel 2, Ableton/Other = Live)

Launchpad MK2 when *not* using Ableton Live on both OS Platforms (LaunchModel 2, Ableton/Other = Other)

Launchpad Pro (**) on Mac OS (LaunchModel 3)

Launchpad Pro (**) on Windows OS (LaunchModel 3)

Note(*): In the Classic, S, Mini, Mini MK2 case the Launchpad port name depends on the model in use.

Note(**): the OS may give different names to the Launchpad ports. For instance the Launchpad Pro [Port Nr. 2] (also referred to as [Standalone port]) changes name from Mac to Windows. On a Mac it is named Launchpad Pro "Standalone Port". On Windows it is named "MIDIIN2 (Launchpad Pro)" / "MIDIOUT2 (Launchpad Pro)" port.

Note: If you have multiple Launchpad devices attached at the same time and like to switch from one to the other be sure to MANUALLY set up the options specified above for the Launchpad you wish to use. Only after that you should be able to activate ISO Controllers on the specific Launchpad (as explained on the next page).

Activating ISO Controllers Layouts (when running ISO Controllers)

Depending on the environment in use, ISO Controllers activates the isomorphic layouts (and in the case of Ableton Live, switches Launchpad mode of operation) a bit differently. Here how to activate it in the various combinations of Launchpad model, OS and DAW.

Launchpad Pro, with any DAW

- Turn ON your Launchpad Pro
- If you wish to use a DAW, start this up (this applies to any DAW, including Ableton Live)
- Start now the ISO Controller desktop application
- Verify the selected Launchpad port and the MIDI Output configuration on ISO Controllers is correct for the Launchpad Pro case. In particular remember that, with the Launchpad Pro, ISO Controllers uses Launchpad port Nr. 2 (the so called Launchpad Pro "Standalone port") to talk to the controller. See also examples and explanations about setup as provided in the previous chapter.
- To *enter* ISO Controllers: on the Launchpad Pro hold down the Setup button and select Programmer mode (by pressing the fifth pad on the first row, counting from left - this pad would be lit in *orange* when Setup is hold down). The pads and buttons will be now configured to the ISO Controller active layout.
- To *exit* ISO Controllers: on the Launchpad Pro hold down the Setup button an select any other mode
- You can enter and exit ISO Controllers layouts by cycling through the last two actions

All other Launchpad models, with Ableton Live

- Turn ON your Launchpad (any model other than Launchpad Pro)
- Start Ableton Live
- Start now the ISO Controller desktop application
- Verify the selected Launchpad and the MIDI Output configuration on ISO Controllers is correct for the model you are using (see explanation on setup provided in the previous chapter). If you use a Launchpad MK2 the [Ableton/Other] switch must be set to "Live"
- To *enter* ISO Controllers: on the Launchpad press the User2 button (top row, second from the right). The pads and buttons will be configured to the ISO Controller active layout.
- To *exit* ISO Controllers: press any other mode (Session, User1 or Mixer)
- You can enter or exit ISO Controllers layout as many time you want to
- You can enter and exit ISO Controllers layouts by cycling through the last two actions

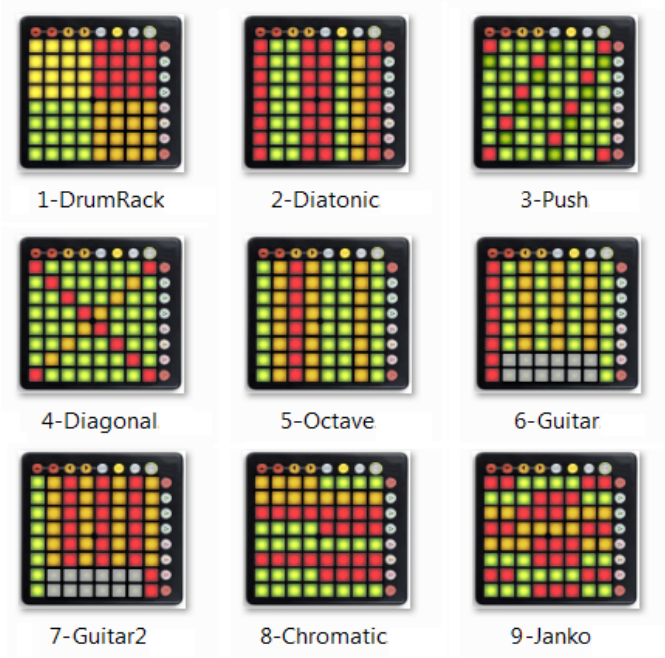
All other Launchpad models, with any other DAW (which is not Ableton Live)

- Turn ON your Launchpad (any model other than Launchpad Pro)
- If you need to use a DAW, start this up
- Start now the ISO Controller desktop application
- Verify the selected Launchpad and the MIDI Output configuration on ISO Controllers is correct for the model you are using (see explanation on setup provided in the previous chapter). If you use a Launchpad MK2 the [Ableton/Other] switch must be set to "Other"
- To *enter* ISO Controllers: on the Launchpad press the User2 button (top row, second from the right). The pads and buttons will be configured to the ISO Controller active layout.
- To *exit* ISO Controllers: press any other mode (Session, User1 or Mixer)
- You can enter and exit ISO Controllers layouts by cycling through the last two actions

Layouts

The templates used by the J74 ISO Controllers software *re-use the matrix layout* of the Launchpad as a MIDI instrument by re-assigning notes to the pads and using colors to give intuitive information about the layout and its harmonic characteristics.

Below a visual overview of the layouts available:



The package supports *nine different layouts* with a large database of scales (more than 40). The application allows to transpose the selected layout & scale combination to any root key. These selection can all be made directly from the Launchpad.

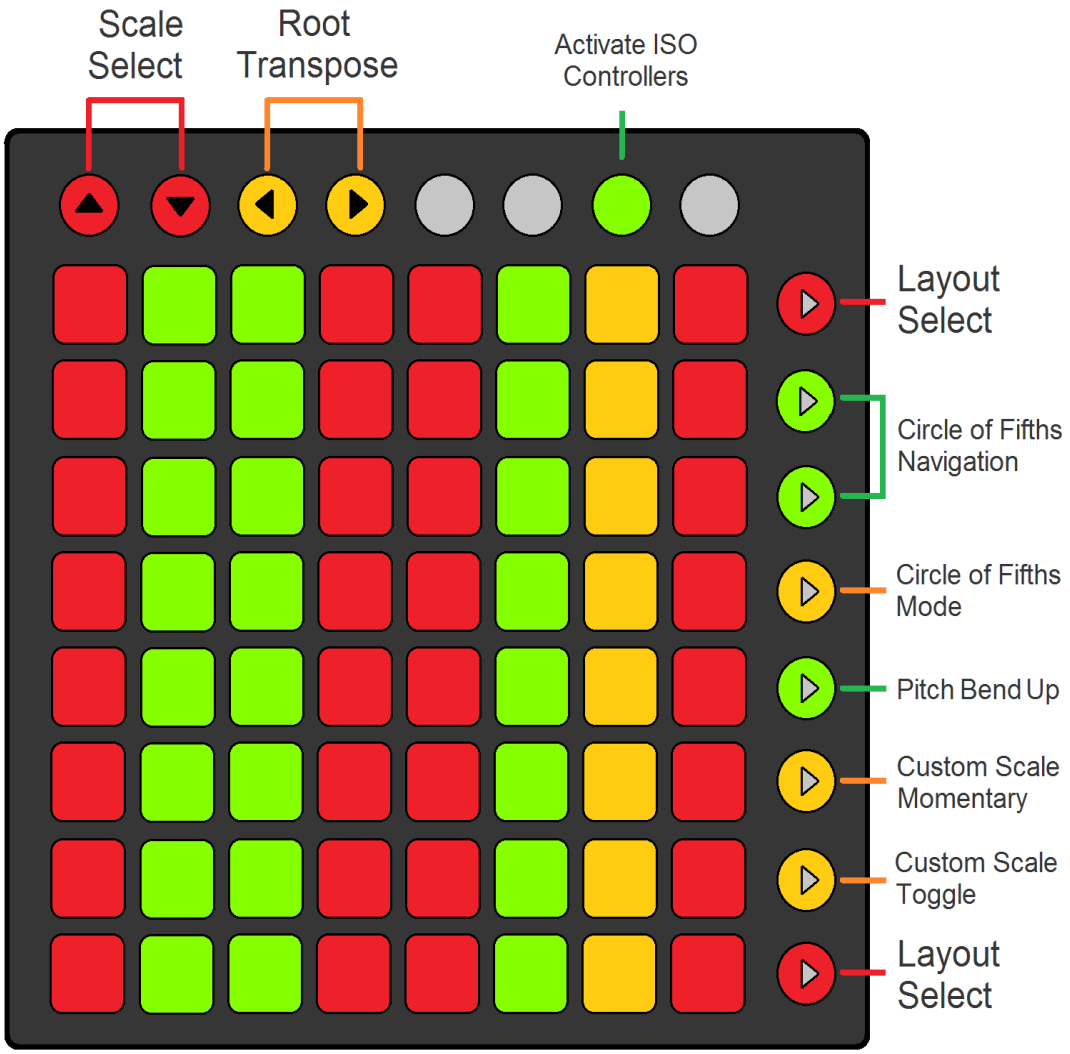
Each of the layouts has something peculiar, either harmonically or practically. Here the list of the layouts with the main characteristics in terms of isomorphic behavior, scale support and transpose support.

Layout Name	Isomophic	Scale	Tranpose
DrumRack			X
Diatonic	X	X	X
Push	X	X	X
Diagonal	X	X	X
Octave		X	X
Guitar	X		X
Guitar2	X		X
Chromatic			X
Janko	X		X

We will look at each layout individually in a few paragraphs. Let's first have a look on the user interface.

Launchpad Interface (All models apart from the Launchpad Pro)

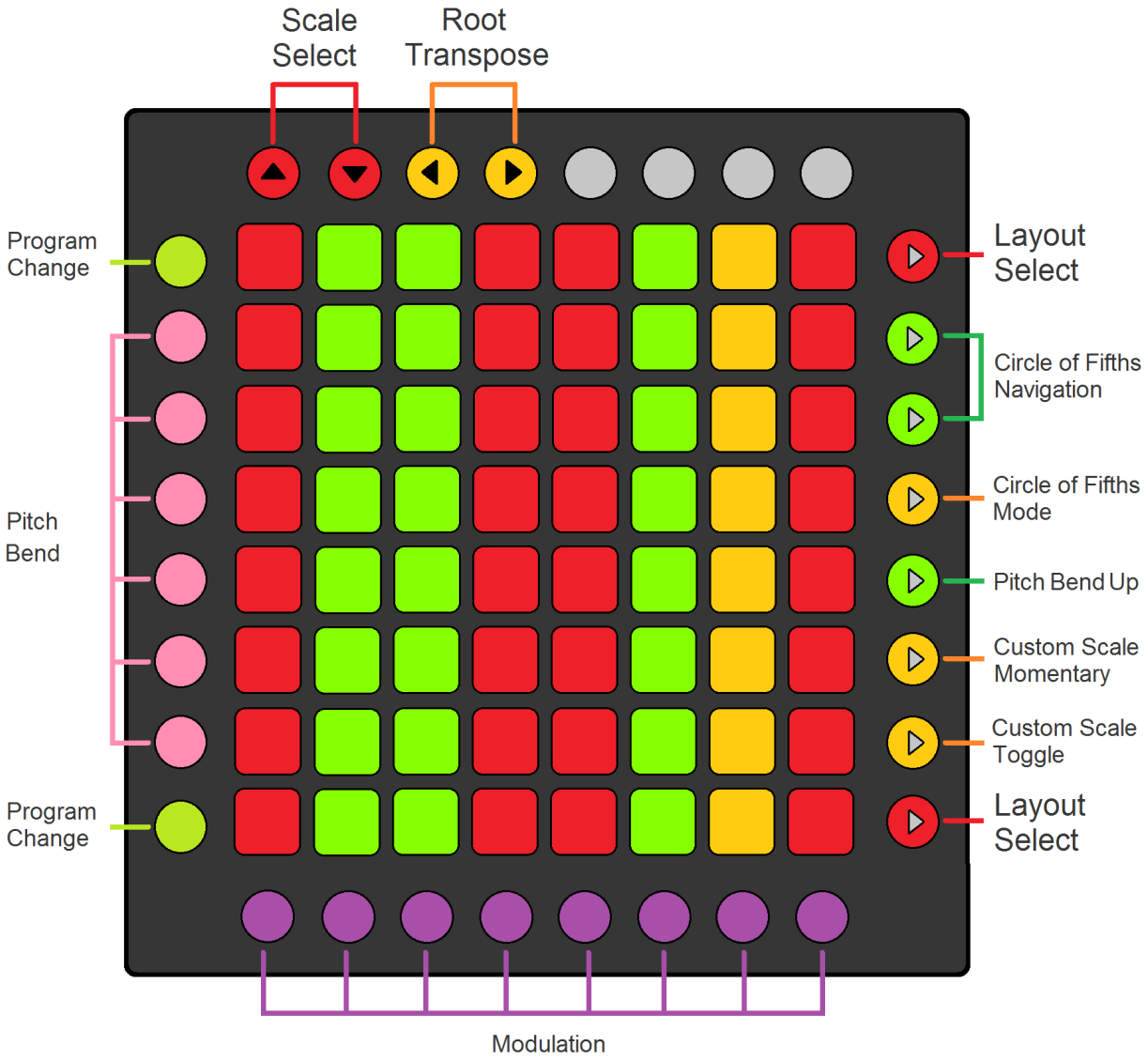
Below the user interface on the Launchpad itself, in particular for the Launchpad Classic, S, MK2 and Mini models.



In the next paragraph we will see what the various controls do and to which parameter the map on the software.

Launchpad Pro Interface

Here the user interface on the Launchpad itself, in particular for the Launchpad Pro model.

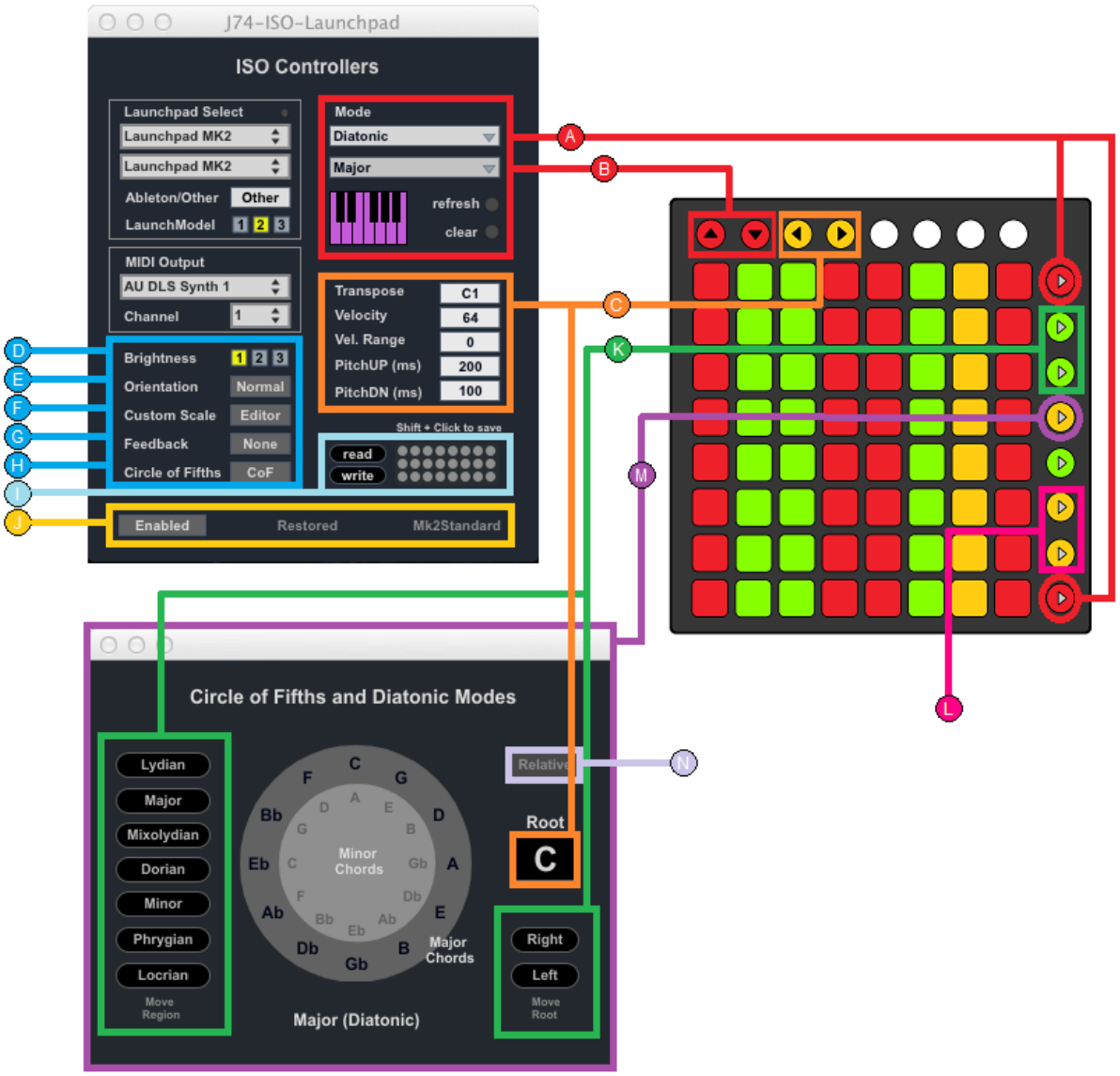


As you can see from the picture (comparing it with the one shown in the previous paragraph) the Launchpad Pro interface shares most of the configuration of the other models, including the use of the pads, of the top row and of the right column.

Exclusive to the Launchpad Pro case though are the *left column* and the *bottom row*. The left column provides a Pitch Bender (buttons 2 to 7 on the right column) and buttons for Program Changes (upper button moves up, lowest button moves down). The bottom row acts as a Modulation wheel. More information on how to use them is provided in the next section.

User Interface on the Software (Parameters and Controls)

A description of the controls and parameters available is given in this section. Refer to the picture for locating the various controls and parameters, on both software interface and Launchpad.



A) **Mode selection:** Select which layout mode to use. You can use the side button 1 (vol) and 8 (arm) on the controller.

B) **Scale selection:** Select which scale to use. Use the Up/Down arrows on the controller.

C) Various Options:

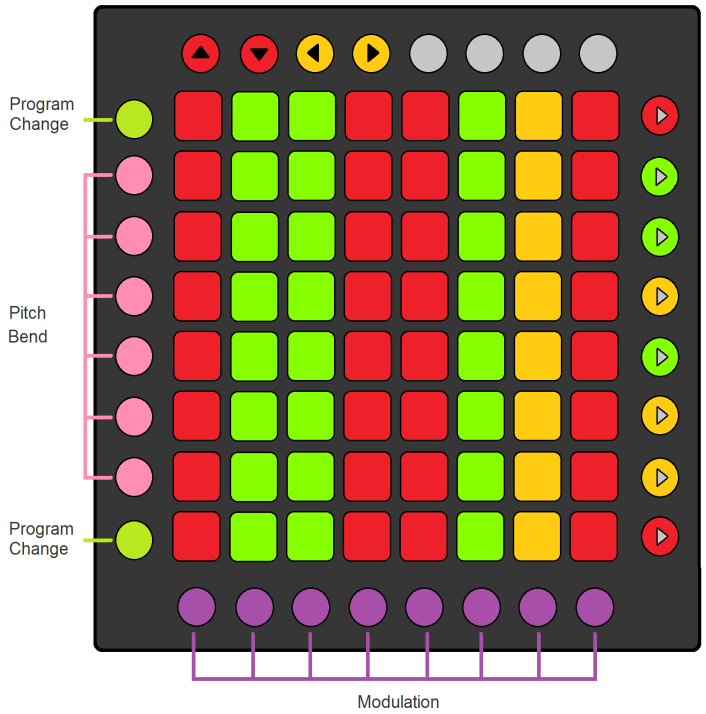
- **Transpose:** Transpose MIDI output up or down. Use the Left/Right arrows on the controller.
- **Velocity**: Sets the output velocity (applicable to all models with exception of the Launchpad Pro, which as native velocity support, as well as after-touch/channel pressure) .
- **Velocity Range**: Define the randomness amount for the output velocity (a range of 0 means fixed velocity).
- **PitchUP**(ms): Set the Pitch Bender ramp attack time (in ms).
- **PitchDown** (ms): Set the Pitch Bender ramp release time (in ms). Use the "Stop" side button 5 (green) to trigger the Pitch Bender ramp. On the Launchpad Pro a more extensive Pitch Bender is available on the left column.

D) **Brightness:** Select alternative color schemes with different brightness.

E) **Orientation**: If selected rotates the matrix layout (8x8 matrix used for notes) of 180 degrees.
F) **Custom Scale** (Editor): Activates a pop-up window with a simple editor for the custom scale. Plan your custom scale in the C root. Use the main device transpose box to transpose to another root.
G) **Feedback**: Activates note feedback on the entire matrix (shows where the sames notes are located for alternative fingering, useful for studying how to best perform scales and chords)
H) **CoF**: Opens the Circle of Fifths view for advanced navigation of the diatonic modes.
I) **Presets**: You can save (SHIFT + CLICK) and recall presets (CLICK). To export/import to/from a file use the read and write buttons. Remember to use the "*.maxpresets*" file extension on the files (it won't be otherwise imported or exported).
J) **Status Bar**: The Enable button allows you to let the device standby operation. It also offers a status of the device.
K) **CoF Navigation buttons (*)**: allows you to navigate the circle of fifths either by region or by fifth (rotation of the circle).
L) **Activates/Deactivates the Custom Scale**. The custom scale can be selected in using the buttons 6 and 7 on the right column
M) **Open CoF view & Mode of Navigation**: defines if navigation is done by region or by root (rotation)
N) **CoF Relative Navigation**: if set ON it allows you to change region/mode in relative way (keeping the same note range)

(*) See next the paragraph on the "CoF view" for more information.

Special controls available only on the Launchpad Pro:

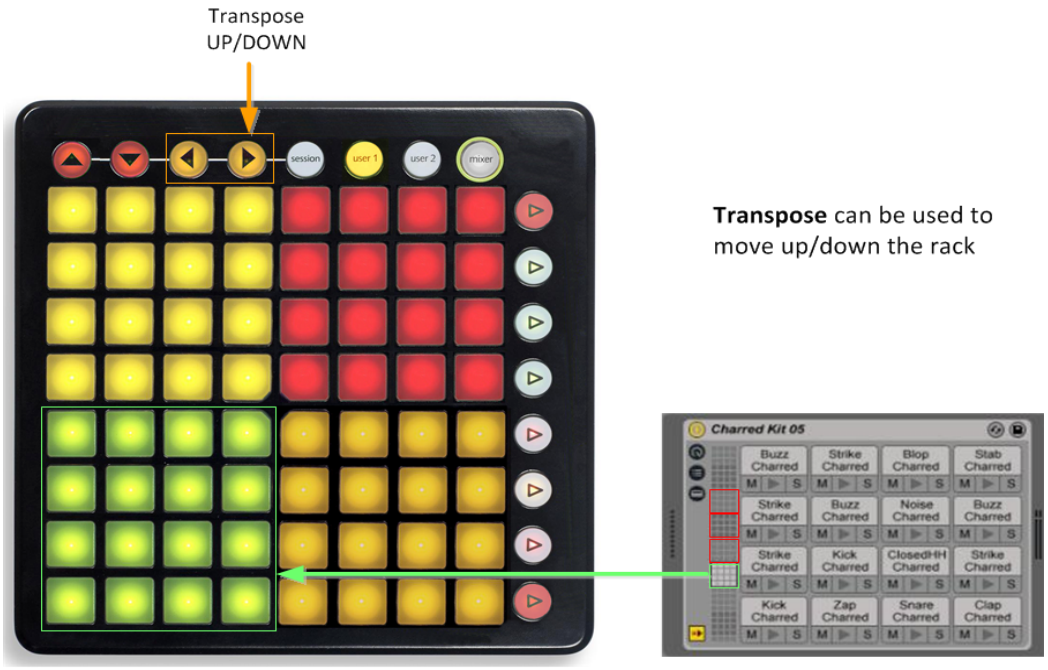


- **Program Change** (left column buttons 1 and 8). Allows you to send Program Change messages (in output) to the MIDI instrument being played. If this instruments supports these messages you will be able to change sound.
- **Pitch Bend**: Uses buttons 3 to 7 on the left column as pitch bender with three levels up, three levels down and automatic return to the center position (when you release the buttons). The PitchUP(ms) and PitchDown (ms) can be used to set ramp attack and release times (in milliseconds). Values will be interpolated to generate continuous bending.
- **Modulation (CC = 1)**: the bottom row works as a virtual modulation wheel (with no automatic return). Button 1 closes the modulation wheel (modulation to value 0), button 8 opens it completely (modulation to value 127). The other buttons from 2 to 7 progressively open/close the wheel.

Layout details and playing techniques

On the next pages some essential information is given about each layout mode.

MODE 1: **Drum Rack**



Transpose can be used to move up/down the rack

The classical drum pads layout, with each 4x4 block of pads mapping to Live's to Drum Rack (actually the same as original user mode 1, unless transposed….)

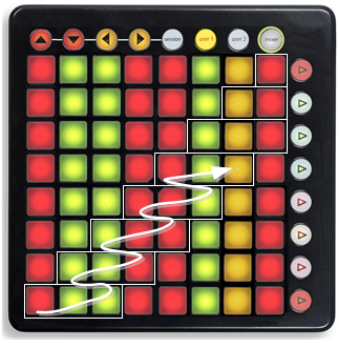
MODE 2: **Diatonic**

Chords develop *VERTICALLY* (*isomorph* layout)

Example: Major C scale
(Transpose = 0)

0	2	4	5	7	9	11	0
9	11	0	2	4	5	7	9
5	7	9	11	0	2	4	5
2	4	5	7	9	11	0	2
11	0	2	4	5	7	9	11
7	9	11	0	2	4	5	7
4	5	7	9	11	0	2	4
0	2	4	5	7	9	11	0

Triad (C Major)
Triad+7th (F Major7)
Triad+7th+9th (G Major 9th)
Triad+7th+9th+11th (C Major 11th)



Scales can be played with 3 fingers moving up/diagonally *each 3 notes*. Easy for solo's as well

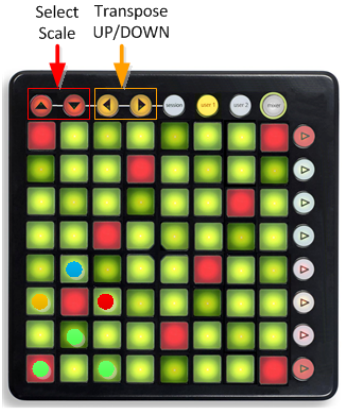
Colums gives all Majors/Minors (and adding extra notes vertically, 7th, 9th, 11th) chords in scale, from *ANY* position.

Changing scale changes chord set. "Exotic" scales give complex chords. *Transpose* affects the scale's root.

Pad Colors give the chord type in diatonic harmonization: Red = major, Green = minor, Orange = diminished

<u>TIP: this mode is ideal for chord experiments</u>

MODE 3: **Push**

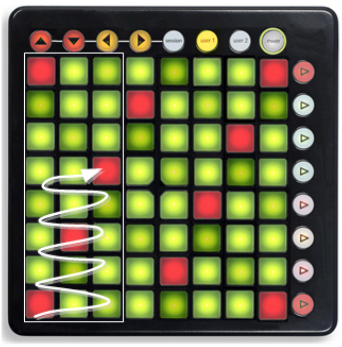


Chords develop *alternating* notes (*isomorph* layout)

Example: Major C scale
(Transpose = 0)

0	2	4	5	7	9	11	0
7	9	11	0	2	4	5	7
2	4	5	7	9	11	0	2
9	11	0	2	4	5	7	9
4	5	7	9	11	0	2	4
11	0	2	4	5	7	9	11
5	7	9	11	0	2	4	5
0	2	4	5	7	9	11	0

11th
7th
Triad (C Major)
9th



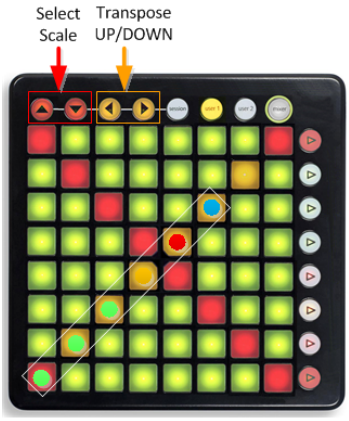
Scales can be played with 3 fingers just *moving up each 3 notes upwards*

Pad Colors give some information on the key role in the scale:
Red = root,
Green-Half = third,
Green-Dark = fifth,
Green-Normal = other

Changing scale gives different chord sets and scale falovors. *Transpose* affects the scale's root note.

TIP: this mode is good for solos

MODE 4: **Diagonal**



Chords develop *DIAGONALLY* (*isomorph* layout)

Example: Major C scale (Transpose = 0)

0	2	4	5	7	9	11	0
11	0	2	4	5	7	9	11
9	11	0	2	4	5	7	9
7	9	11	0	2	4	5	7
5	7	9	11	0	2	4	5
4	5	7	9	11	0	2	4
2	4	5	7	9	11	0	2
0	2	4	5	7	9	11	0

1st (C Major) 3rd 5th 7th 9th 11th

Scales can be played linearly, vertically and horizontally

Changing scale for more chord sets.
Transpose affects the root note.

Same **Diatonic Harmonization** mechanism gives Automatically Major/Minor **from EACH position, in diagonal**.
See also: http://en.wikipedia.org/wiki/Chord_progression

TIP: this mode is good for arpeggio playing (fingers in diagonal)

MODE 5: **Octave**

Chords develop *horizontally by alternated tones*

Example: Major C scale
(Transpose = 0)

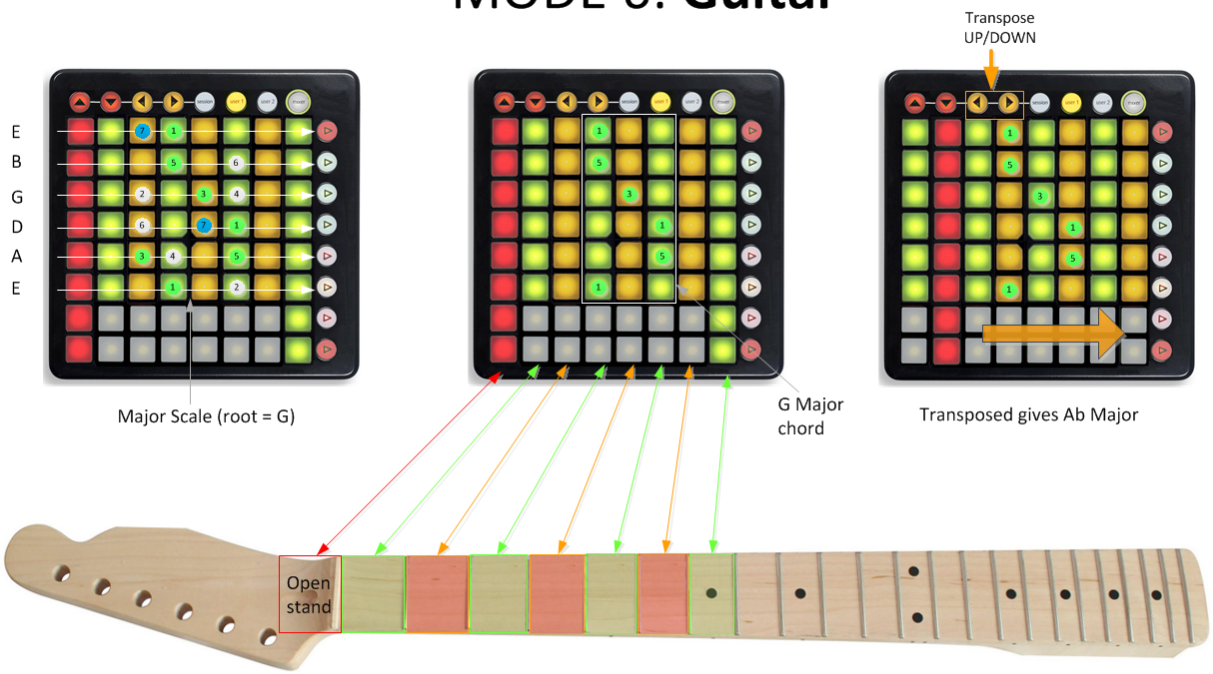
108	110	112	113	115	117	119	120
96	98	100	101	103	105	107	108
84	86	88	89	91	93	95	96
72	74	76	77	79	81	83	84
60	62	64	65	67	69	71	72
48	50	52	53	55	57	59	60
36	38	40	41	43	45	47	48
24	26	28	29	31	33	35	36

Changing scale changes the note layout.
Transpose affects the root note.

Scales can be played horizontally,
Each row up increments *one octave*

TIP: this layout gives a lot of space… (8 octaves)

MODE 6: **Guitar**

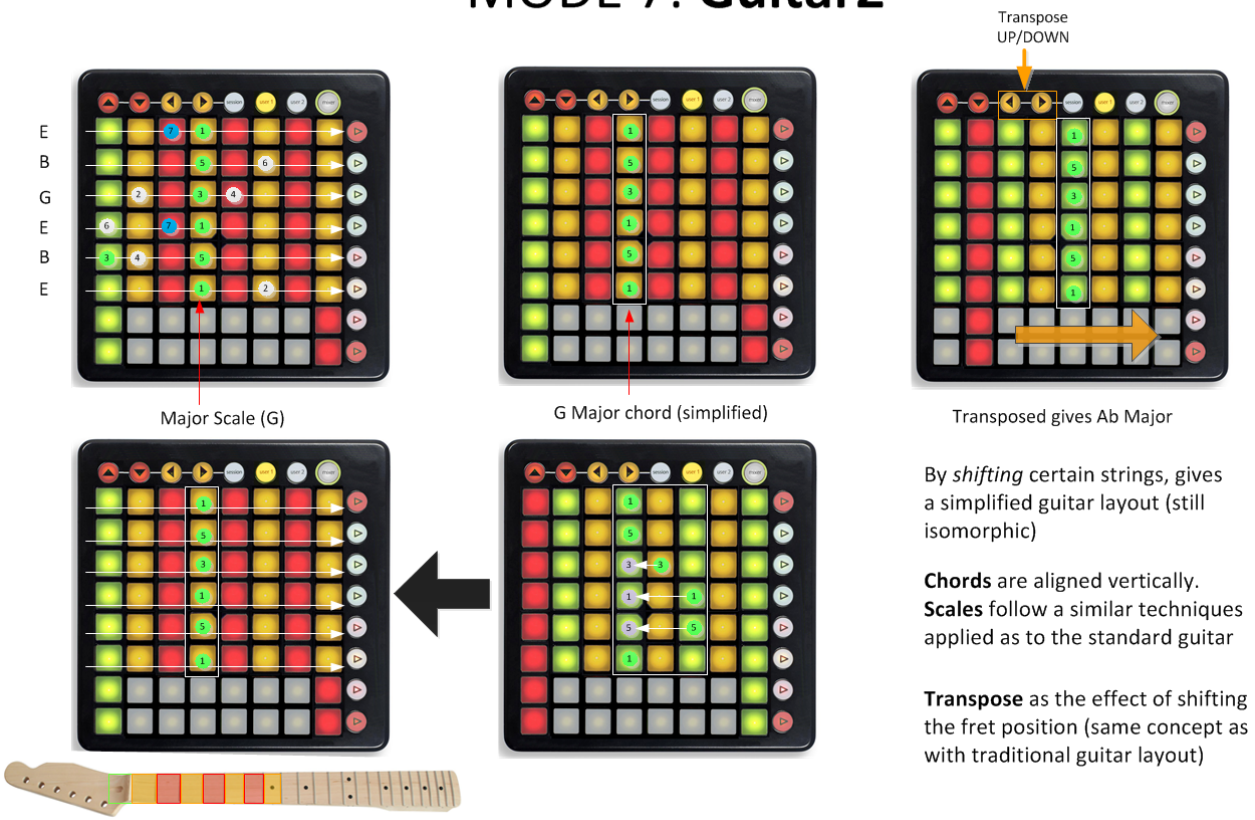


Chords and Scales follow exactly the same techniques applied to the guitar (which is an *isomorph* layout)

Transpose as the effect of shifting the fret position

TIP: a good way to play a synth if you are a guitarist…..

MODE 7: **Guitar2**



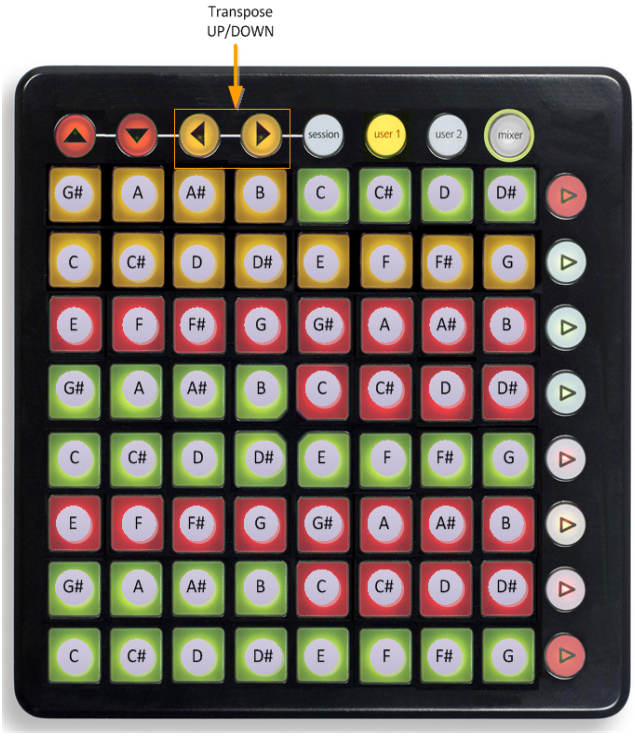
By *shifting* certain strings, gives a simplified guitar layout (still isomorphic)

Chords are aligned vertically.
Scales follow a similar techniques applied as to the standard guitar

Transpose as the effect of shifting the fret position (same concept as with traditional guitar layout)

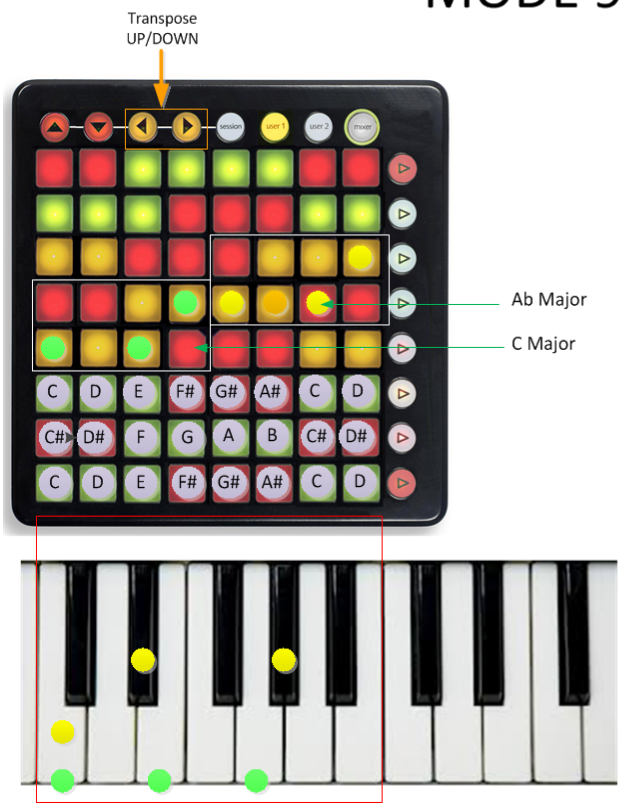
TIP: a good way to play a instrument like a virtual guitar, if you are *not* a guitarist…..

MODE 8: **Chromatic**



Classic piano chromatic emulation.
Transpose affects the root note.

MODE 9: **Janko**



Experimental layout built in some piano's in the early 1900.

Isomorphic but chromatic layout

Chords and Scales have the same patterns on any root (like on the guitar)

Transpose affects the root note.

Available Scales

The following are the scales available to ISO Controllers (columns 3-11 define the semitone distance from the root):

Nr	Scale	1	2	3	4	5	6	7	8
1	Major	0	2	4	5	7	9	11	12
2	Dorian	0	2	3	5	7	9	10	12
3	Minor_Blues	0	3	5	6	7	10	12	15
4	Minor_Jipsy	0	1	4	5	7	8	10	12
5	Minor	0	2	3	5	7	8	10	12
6	Mixolydian	0	2	4	5	7	9	10	12
7	Lydian	0	2	4	6	7	9	11	12
8	Phrygian	0	1	3	5	7	8	10	12
9	Locrian	0	1	3	5	6	8	10	12
10	Diminished	0	2	3	5	6	8	9	12
11	Whole-half	0	2	3	5	6	8	9	12
12	Whole-tone	0	2	4	6	8	10	12	12
13	Minor_Pentatonic	0	3	5	7	10	12	15	17
14	Major_Pentatonic	0	2	4	7	9	12	14	16
15	Harmonic_Minor	0	2	3	5	7	8	11	12
16	Melodic_Minor	0	2	3	5	7	9	11	12
17	Super_Locrian	0	1	3	4	6	8	10	12
18	Bhairav	0	1	4	5	7	8	11	12
19	Hungarian_Minor	0	2	3	6	7	8	11	12
20	Hirojoshi	0	2	3	7	8	12	14	15
21	In-Sen	0	1	5	7	10	12	13	17
22	Iwato	0	1	5	6	10	12	13	17
23	Kumoi	0	2	3	7	9	12	14	15
24	Pelog	0	1	3	6	10	11	12	13
25	Spanish	0	1	3	4	5	6	8	12
26	Zirafkend	0	2	3	5	7	8	9	12
27	Algerian	0	2	3	5	6	7	8	12
28	Pneutral	0	2	5	7	10	12	14	17
29	Augmented	0	3	4	7	8	11	12	15
30	Enigmatic	0	1	4	6	8	10	11	12
31	LydianAug	0	2	4	6	8	9	11	12
32	NeopMaj	0	1	3	5	7	9	11	12
33	NeopMin	0	1	3	5	7	8	10	12
34	Prometheus	0	2	4	6	9	10	12	14
35	PromNeop	0	1	4	6	9	10	12	13
36	SixToneSym	0	1	4	5	8	9	12	13
37	LydianMin	0	2	4	6	7	8	10	12
38	LydianDim	0	2	3	6	7	8	10	12
39	NineTone	0	2	3	4	6	7	8	12
40	Overtone	0	2	4	6	7	9	10	12

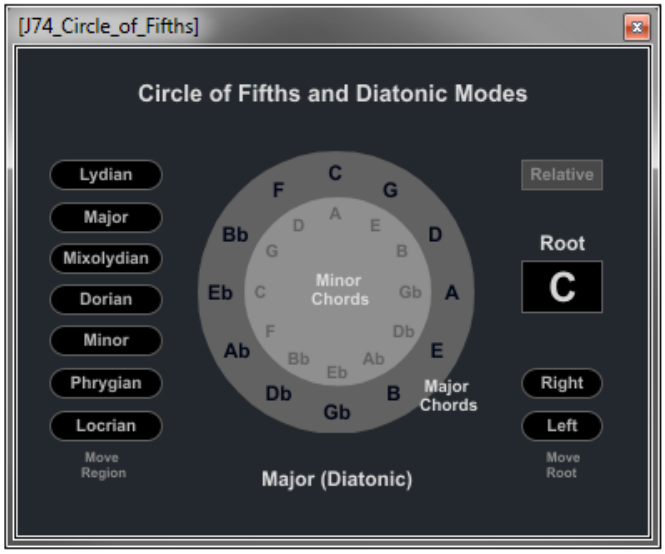
Tips: use the UP and DOWN arrow top buttons to move through the scales.

Note: the Custom Scale is an additional option. With the Custom Scale editor you can define yourself which scale to work with (using C as a reference root).

Circle of Fifths view

The Circle of Fifths view offers a different approach to the isomorphic layout, based on the logic of the so called Circle of Fifths [*]. This approach allows you to navigate the circle and explore the relationships between (diatonic) scales and modes.

[*] This view has been developed with the valuable help (advices, explanation, ideas) of "Flamenco Chuck" Keyser (http://www.FlamencoChuck.com). Thanks to Chuck for his precious input.



The tool provides you with the following controls:

- [**Root**] to transpose the circle notes, changing the [root] parameter in the Main window as well.
- [**Mode**] buttons to change mode (and Main window [scale]), moving to a different region on the circle.
- [**Left**] or [**Right**] to rotate the root of the circle (and change the [root] on the Main window accordingly).
- [**Relative**] option, if enabled, for a relative move of mode on the circle: if enabled, using the [Mode] buttons, *both* [root] and [scale] will be adapted in order to select *a relative mode* of the current scale (e.g from C Major to A Minor), which keeps the note set intact.

Note: You can navigate the Circle of Fifths view directly from the Launchpad using the right side buttons. The fourth right side button (counting from the top) switches between {Move Region} to {Move Root} navigation, while the second and third right side buttons (again, counting from the top) navigate the circle of fifths up and down respectively.